MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2022/2023

BEA 2074 ENTERPRISE ARCHITECTURE

(All Sections / Groups)

14 JULY 2023
09.00 A.M.- 11.00 A.M.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 2 pages (including cover page)
2. There are THREE questions with sub sections for questions ONE and THREE
3. Answer **ALL** questions
4. Mark distribution for each question is given in parenthesis

Question 1

In this exercise, you will design a database for used cars, as might be used by an on-line trading site. The database will store automobiles for sale. Each automobile has a VIN (vehicle identification number), a model (e.g., Camaro), a make (e.g., Chevrolet), a year (e.g., 1996), a color (e.g., red), a mileage (e.g., 50,000 miles), and a body style (e.g., coupe). Each automobile has a seller, which may be either a dealer or an individual. For dealers, the database has a name, address, and phone number. For individuals, only a phone number and email address are recorded. In addition, articles about cars are maintained. Each article is about one model, make, and year of automobile, and each article has an author. The same author may write several articles about one make and model for one year. The database should connect cars with the articles about the make, model, and year of that car, although it need not make a *direct* connection. Given this description, do the following

Design a schema for a relational database, list all relation schema and for each relation schema, state as follows:

(i) the name of the relation,
(ii) the names of its attributes,
(iii) the domain (or data type) of each attribute, and
(iv) the primary key.

(20 marks)

Question 2

Define abstractions and perspectives of the TOGAF framework with the aid of a diagram and table?

(15 marks)

Question 3

a. Why would you choose a database system instead of just storing data in operating system files? When would it make sense *not* to use a database system?

(10 marks)

b. A data warehouse leads to a **direct increase in quality** of data analysis and reduces **'cost-per-analysis'.** Explain this statement.

(5 marks)

End of Paper